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Apprenticeship and the Supply of Skilled
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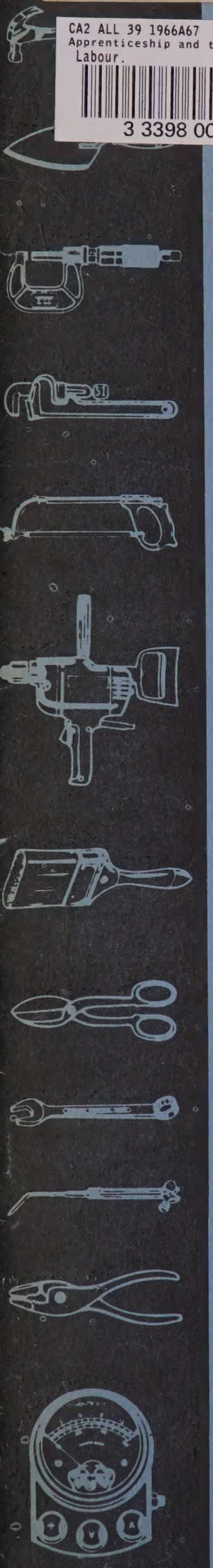

TRAINING TODAY FOR TOMORROW!

APPRENTICESHIP

The
PROVINCIAL APPRENTICESHIP BOARD
Alberta Department of Labour

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APPRENTICESHIP

and the supply of

SKILLED LABOUR

A record of the accomplishment of the Alberta
Apprenticeship System in the past ten years
together with a plan to train over seven thousand
Tradesmen in the next five years from the ranks
of Alberta youth--simply--effectively--through
APPRENTICESHIP

The Apprenticeship Branch
Department of Labour

CALGARY
Provincial Building
101 - 8th Avenue, S. E.

RED DEER
Room 201
Provincial Building

EDMONTON
Terrace Building

LETHBRIDGE
Administration Building
9th Street & 3rd Avenue, N

GRANDE PRAIRIE
Room 211
Provincial Building

March 1966

PREFACE

An apprenticeship training program under the provisions of The Apprenticeship Act has its beginnings for a trade or industry when those (or their representatives) engaged in that trade or industry make petition to the Minister of Labour for designation under the Act.

Apprenticeship in a designated trade begins for a young man when he and his employer jointly apply to the Apprenticeship Board for approval and registration of their proposed apprenticeship. Contracts are signed by all concerned. Employment, providing a broad working experience and on-the-job training is the employer's responsibility. Technical school training is provided at public expense--costs being shared equally by the Provincial and Federal governments under the provisions of the Technical and Vocational Training Agreement and the Apprenticeship Agreement. Courses are offered mainly at the Northern Alberta Institute of Technology and the Southern Alberta Institute of Technology.

Standards of training and competency are established and maintained by the Apprenticeship Board working in co-operation with management and labour in industry and with personnel of the technical schools. Provision is made to award credit to those who approach apprenticeship with a background of technical education and of experience. The opportunity of educational upgrading is provided for those who are selected by industry and who are unable to display the competency in basic educational skills considered essential for successful performance on a particular program.

All who serve the working time, complete the technical school program and pass established examinations are awarded the Completion of Apprenticeship Certificate.

F. E. WHITTLE, DIRECTOR
G. L. PEERS, ASS'T DIRECTOR

TELEPHONES
229-3586
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GOVERNMENT OF THE PROVINCE OF ALBERTA
APPRENTICESHIP BOARD AND TRADESMEN'S QUALIFICATION
TERRACE BUILDING, EDMONTON, ALBERTA
106 STREET AND 96 AVENUE

OUR FILE:

TO MANAGEMENT IN ALBERTA INDUSTRY REGARDING -- THE SUPPLY OF SKILLED LABOUR

Almost everyone who is a tradesman or who employs a tradesman concedes that the process of becoming a tradesman involves, among other things, a substantial measure of working experience. Just how much experience is an indeterminate quantity. It varies with individuals and it varies with the effectiveness of experience as a learning-training instrument. It is a function of the standards that industry sets for its skilled workers. None the less, in some measure, experience is essential in the attainment of trade proficiency. Any formal program that couples technical school training with working experience, is modern apprenticeship.

Apprenticeship takes time. The men who began apprenticeships in Alberta in 1965, will become full fledged tradesmen in 1968 and 1969. Any acceleration of this process will surely result in a lowering of standards when technological advance seems to demand that standards be raised.

Now, the numbers of men in training in Alberta apprenticeship programs are such that 1,000 could graduate in 1966, 1,200 in 1967, 1,400 in 1968 and 1,600 in 1969. The retention of apprentices must be improved substantially to reach these objectives. Little can be done at this late date to enhance them. The indenture of 3,000 new apprentices in 1966 should assure the graduation of another 2,000 journeymen in three or four years. A total of 7,200 new tradesmen can then be the result by December 1970.

The plan is simple. It will be effective. It is founded on 3 requirements:

1. There must be 3,000 new apprentices in 1966.
2. There must be 2,400 apprentices on first year courses in the '66-67 term.
3. There must be a 15% improvement in apprentice retention.

These requirements are hereby laid on the doorsteps of industry -- every industry, be it small or large, throughout this Alberta -- a challenge to train 7,200 tradesmen in the next five years from the ranks of Alberta youth.

Respectfully submitted,

F. E. WHITTLE

SEVEN THOUSAND GRADUATES - 1966 TO 1970

One may well ask--Where will these people come from? Are they going to be needed?

A report and forecast on Alberta population provided by the Alberta Bureau of Statistics, April 1965, shows the population to be 1,332,000 in 1961 and forecasts it to be 1,720,000 by 1971. It predicts, with reasonable certainty, that the numbers of males in the 15 to 24 year age group will be 118,000 in 1966. Surely from among all of these young men there are 7,200 prospective tradesmen!

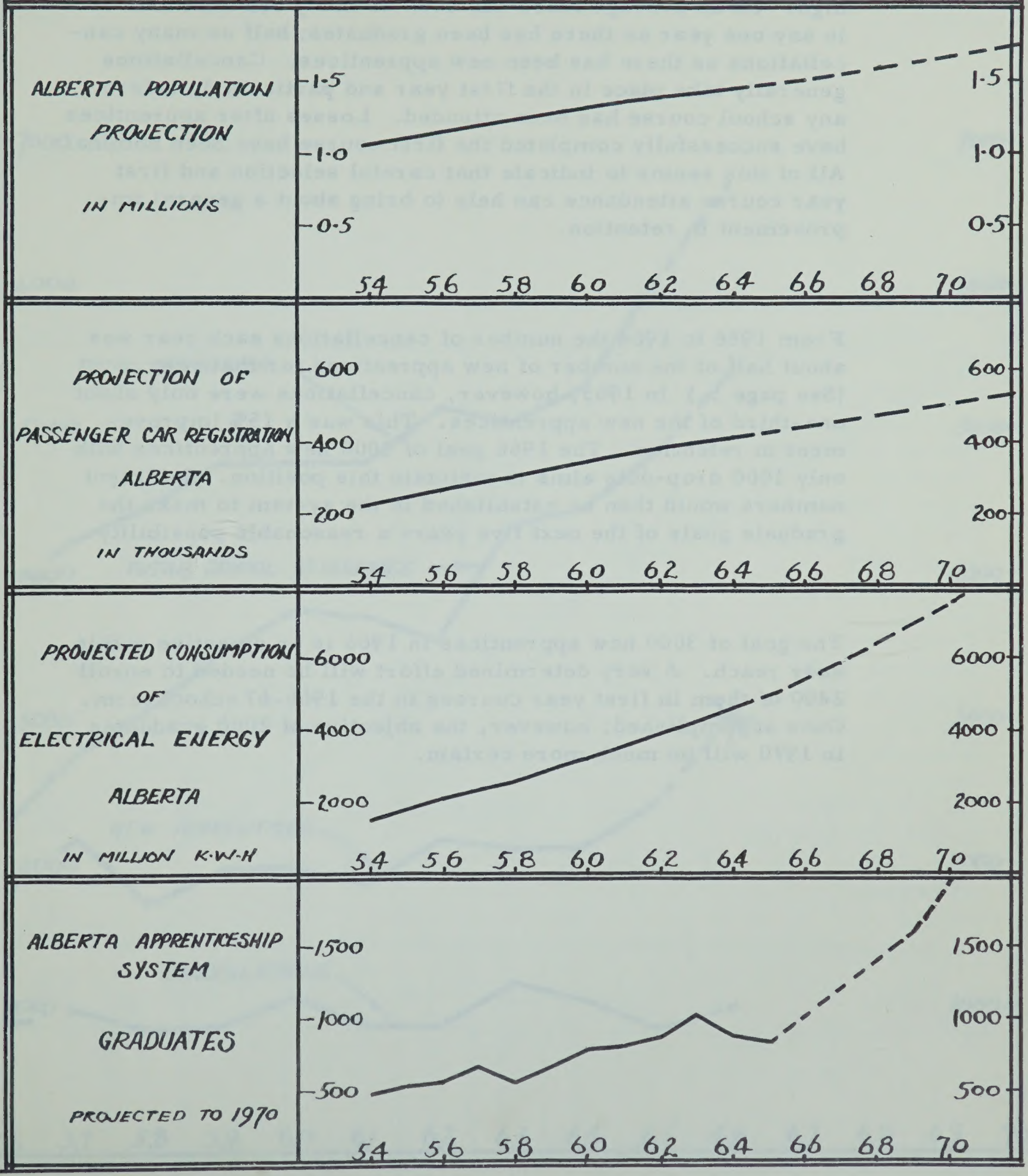
The records of the Motor Vehicles Branch, Department of Highways, show the increase in passenger car registrations to have been about 17,000 each year for several years. Barring some major economic decline it appears safe to say that this growth will continue--if not accellerate. It is submitted that the extensive use of automobiles by the people of Alberta is indicative, in a general way, of demands for service--including the services of skilled workers.

The 1964 Annual Report of the Alberta Power Commission shows electric energy generation in Alberta to have increased from 1,500 million kwh in 1954 to over 4,000 million kwh in 1963. It forecasts an accelleration in the rate of increase in the years ahead. There must surely be some relation between increasing electrical requirements and increase in production of goods. Concomitant with this should follow an increased demand for skilled and technical workers.

It is not presumed that the above is anything but a very shallow analysis of the skilled labour situation for the immediate future. It does seem to indicate, however, that there will be more people requiring training and more industry requiring trained workers than ever before. A goal of 7,200 new tradesmen in the next 5 years appears to be a conservative objective!

FORECAST

7,200 GRADUATES - 1966-70

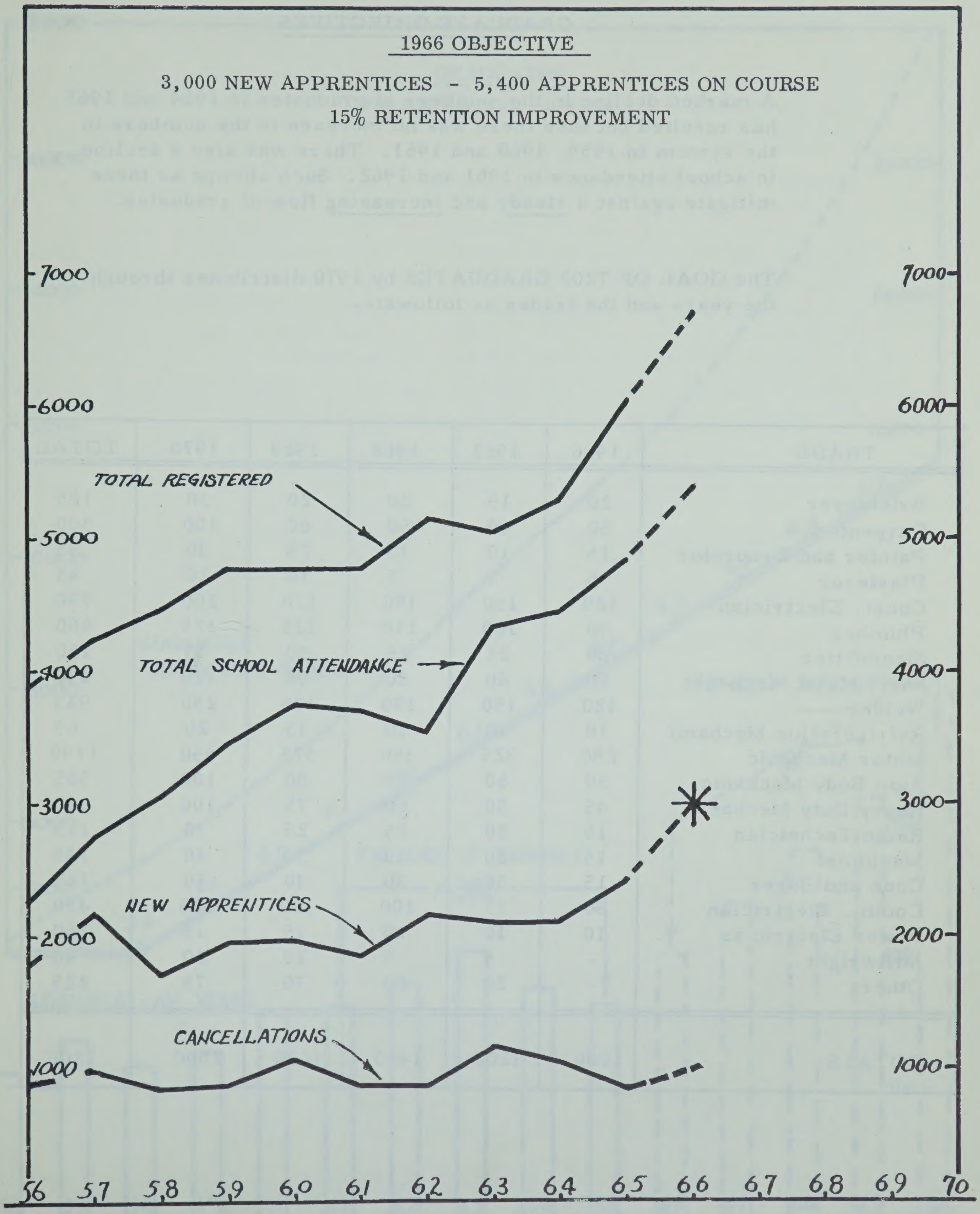


THE RETENTION OF APPRENTICES IN TRAINING

The drop-out of registered apprentices has been alarmingly high. On an average there has been as many cancellations in any one year as there has been graduates; half as many cancellations as there has been new apprentices. Cancellations generally take place in the first year and particularly before any school course has been attended. Losses after apprentices have successfully completed the first course have been nominal. All of this seems to indicate that careful selection and first year course attendance can help to bring about a general improvement in retention.

From 1956 to 1964 the number of cancellations each year was about half of the number of new apprentices for that year. (See page 5.) In 1965, however, cancellations were only about one-third of the new apprentices. This was a 15% improvement in retention. The 1966 goal of 3000 new apprentices with only 1000 drop-outs aims to maintain this position. Sufficient numbers would then be established in the system to make the graduate goals of the next five years a reasonable possibility.

The goal of 3000 new apprentices in 1966 is an objective within easy reach. A very determined effort will be needed to enroll 2400 of them in first year courses in the 1966-67 school term. Once accomplished, however, the objective of 2000 graduates in 1970 will be much more certain.



1966 OBJECTIVE

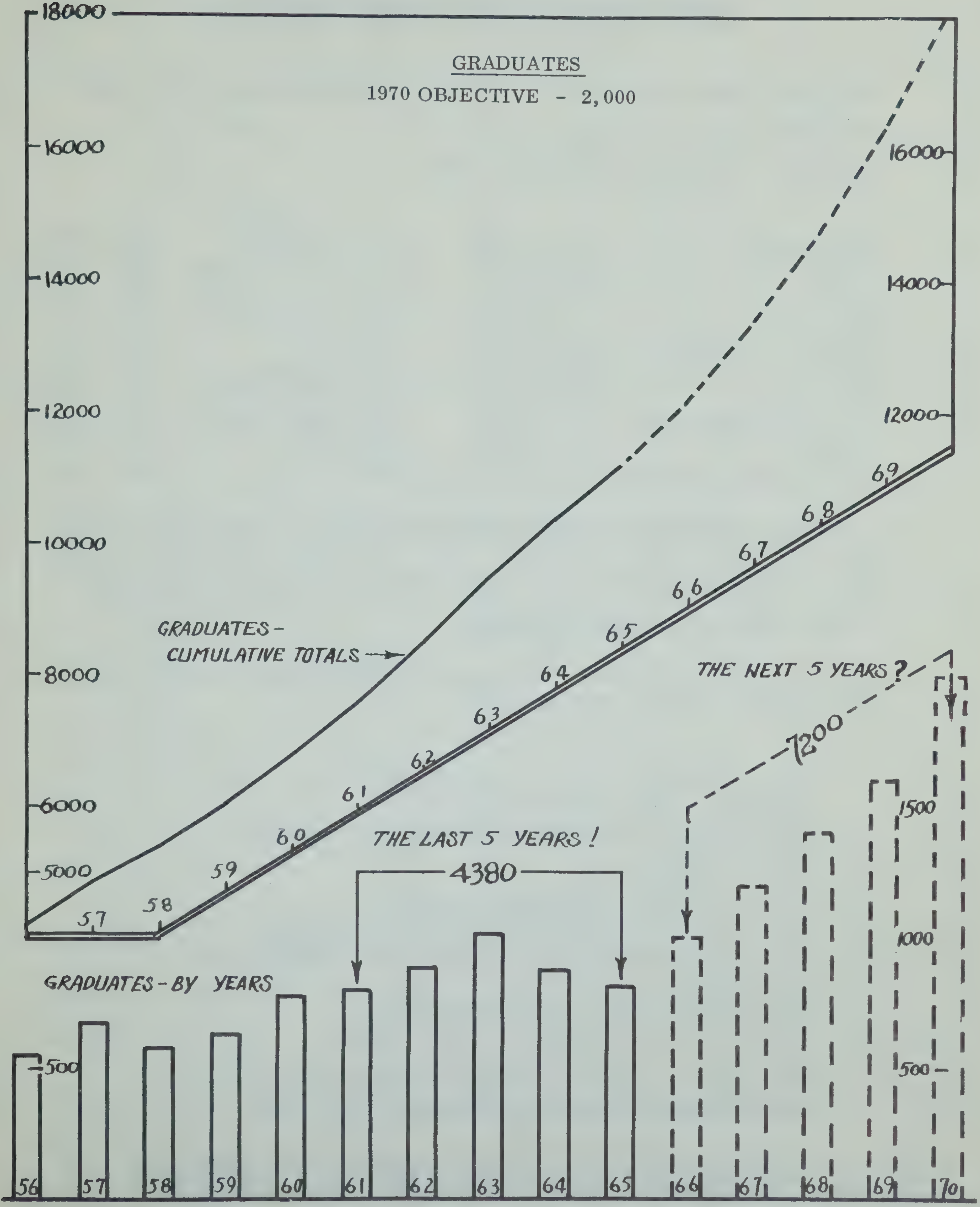
3,000 NEW APPRENTICES - 5,400 APPRENTICES ON COURSE
15% RETENTION IMPROVEMENT

GRADUATE OBJECTIVES

A marked decline in the numbers of graduates in 1964 and 1965 has resulted because there was no increase in the numbers in the system in 1959, 1960 and 1961. There was also a decline in school attendance in 1961 and 1962. Such slumps as these mitigate against a steady and increasing flow of graduates.

The GOAL OF 7200 GRADUATES by 1970 distributes through the years and the trades as follows:--

TRADE	1966	1967	1968	1969	1970	TOTAL
Bricklayer	20	15	20	20	30	105
Carpenter	50	40	50	60	100	300
Painter and Decorator	15	10	15	25	30	95
Plasterer	5	5	5	10	20	45
Const. Electrician	120	150	150	170	200	790
Plumber	90	100	110	125	175	600
Steamfitter	20	25	25	30	50	150
Sheet Metal Mechanic	60	80	80	90	120	430
Welder	120	150	190	235	250	945
Refrigeration Mechanic	10	10	10	15	20	65
Motor Mechanic	290	325	350	375	450	1790
Auto Body Mechanic	50	60	75	80	100	365
Heavy Duty Mechanic	45	50	60	75	100	330
Radio Technician	15	20	25	25	30	115
Machinist	15	20	30	30	40	135
Cook and Baker	15	30	30	40	50	165
Comm. Electrician	50	75	100	100	125	450
Power Electrician	10	10	10	15	15	60
Millwright	-	5	5	10	20	40
Others	-	20	60	70	75	225
TOTALS	1000	1200	1400	1600	2000	7200



GRADUATES

1970 OBJECTIVE - 2,000

THREE THOUSAND NEW APPRENTICES IN 1966

The goal of 3000 new apprentices in 1966 distributes through the trades as follows:

(Figures in brackets are those for 1965)

Bricklayer	45	(26)
Carpenter	150	(97)
Painter	50	(35)
Plasterer	35	(15)
Const. Electrician	300	(271)
Plumber	250	(219)
Steamfitter	80	(55)
Sheet Metal Mechanic	175	(137)
Welder	400	(313)
Refrigeration Mechanic	30	(24)
Motor Mechanic	700	(552)
Auto Body Mechanic	180	(133)
Heavy Duty Mechanic	175	(151)
Radio Technician	55	(39)
Machinist	55	(41)
Cook & Baker	65	(34)
Comm. Electrician	175	(179)
Power Electrician	15	(15)
Millwright	15	(9)
Others	100	(45)

In the past, most new apprentices have come from the ranks of young men (18 - 25) who have been working at a laboring or semi-skilled type of job. The recent development of trade training programs in high schools and other training centers may well result in a flow of trainees from these schools directly into apprenticeship.

Management may well ask--Where do we find prospective apprentices? The following suggestions may help:

1. From among men already in your employ as laborers, operators, semi-skilled workers.
2. From among the sons and acquaintances of tradesmen in your employ.
3. From the Trade Unions.
4. From the National Employment Service.
5. By competition through newspaper advertisements.
6. From the Alberta Vocational Centres of the Department of Education.
7. From graduates of Technical Institutes.
8. From graduates of Vocational High Schools.

(See page 9 for the list of Vocational High Schools and the numbers who are likely to graduate in June 1966)

The selection of apprentices is important. Basic education skills are necessary. The probation period should help to establish such qualities as attitude and aptitude. Apprenticeship should not go ahead for any who display clearly that they lack the potential to become a Tradesman.

VOCATIONAL HIGH SCHOOLS--ALBERTA

VOCATIONAL HIGH SCHOOL	Graduates - June - 1966									
	Carpenter	Electrician	Plbr-Stmftr	Motor Mech & H.D.	Auto Body Mech.	S. Metal Mech.	Welder	Radio Technician	Machinist	Cook
Bowness Comp. H.S.-Calgary	-	-	-	4	-	-	-	7	-	-
James Fowler Voc. H.S.-Calgary	7	3	-	25	10	-	-	13	12	6
E.C. Manning Voc. H.S.-Calgary	6	18	-	20	-	-	-	13	-	-
West.Can. H.S. - Calgary	-	-	-	7	-	-	-	10	-	-
Cr. Heights H.S. - Calgary	14	3	-	4	-	-	-	5	9	-
Camrose Comp. H.S. - Camrose	2	7	-	8	-	-	-	7	3	-
Drumheller Voc. H.S.-Drumheller	1	2	-	13	-	-	-	8	-	-
Victoria Comp. H.S. - Edmonton	11	17	7	27	-	-	5	25	13	21
Jasper Place Comp. H.S. - Edmonton	-	-	5	13	-	6	-	6	-	3
St. Joseph's Voc. H.S. - Edmonton	3	8	11	17	-	-	-	12	-	15
Grande Prairie Voc. H.S. - G. Prairie	14	-	7	17	-	-	-	5	-	-
Lethbridge Collegiate Inst. - Lethbridge	-	-	-	14	-	-	-	3	-	-
Medicine Hat H.S. - Medicine Hat	3	6	-	21	-	-	-	5	7	-
Red Deer Voc. H. S. - Red Deer	-	6	2	15	4	-	-	12	-	5
W. E. Hay Comp. H.S. - Stettler	8	2	7	10	-	-	-	-	-	-

Note: - There are other programs in Vocational High Schools. The ones listed above are those directly related to apprentice programs

FIRST YEAR COURSE ENROLMENT

1966-67 SCHOOL TERM

The enrolment of 2400 apprentices on First Year courses in the 1966-67 school term will be a major accomplishment for it does not automatically follow that 3000 new apprentices means 2400 on courses during the term. The following suggestions may be helpful in working to this goal:

1. Register every new apprentice for a first year course.
2. Make every effort to keep apprentices employed.
3. Arrange for the transfer of apprentices that must be laid off.
4. The apprentice Record Book provides an instrument for mutual discussion of progress and future plans. Take full advantage of it.
5. Keep the local apprenticeship office informed of changes that take place.
6. An Apprenticeship Supervisor is available and ready to assist in the solution of difficulties.

- - -

The pages which follow present graphically the record of most of the programs for the past ten year period. Included also are the requirements for 1966-67 and the objectives for each trade for 1970--shown in broken lines on the graphs. It should be noted that although only the record for First Year courses (or Basic Courses) and Fourth Year courses (or Senior Courses) are shown, there are, in fact, four yearly courses in most programs. On Page 26 will be found a brief account of trade programs recently developed and which have not been illustrated graphically.

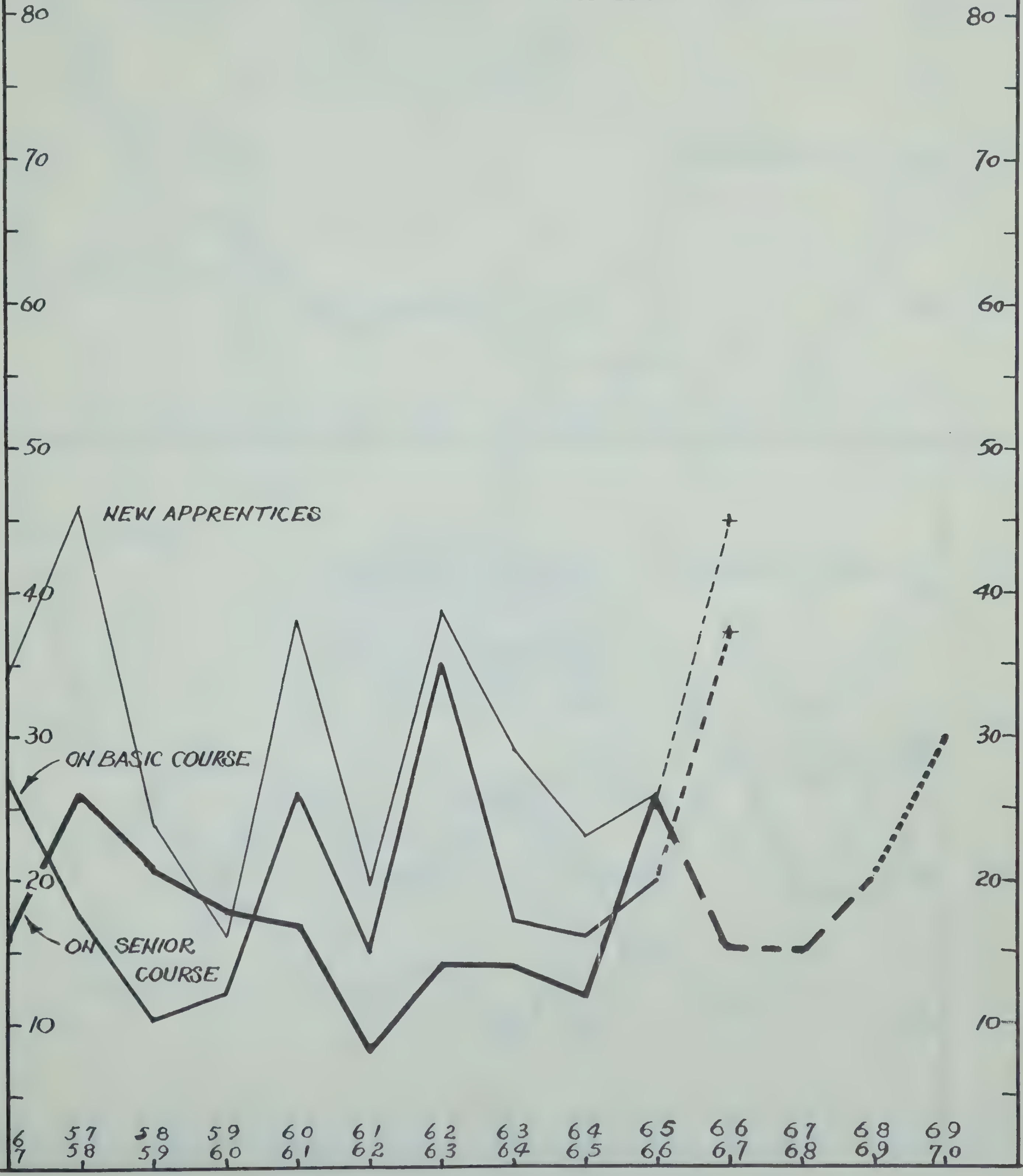
- - -

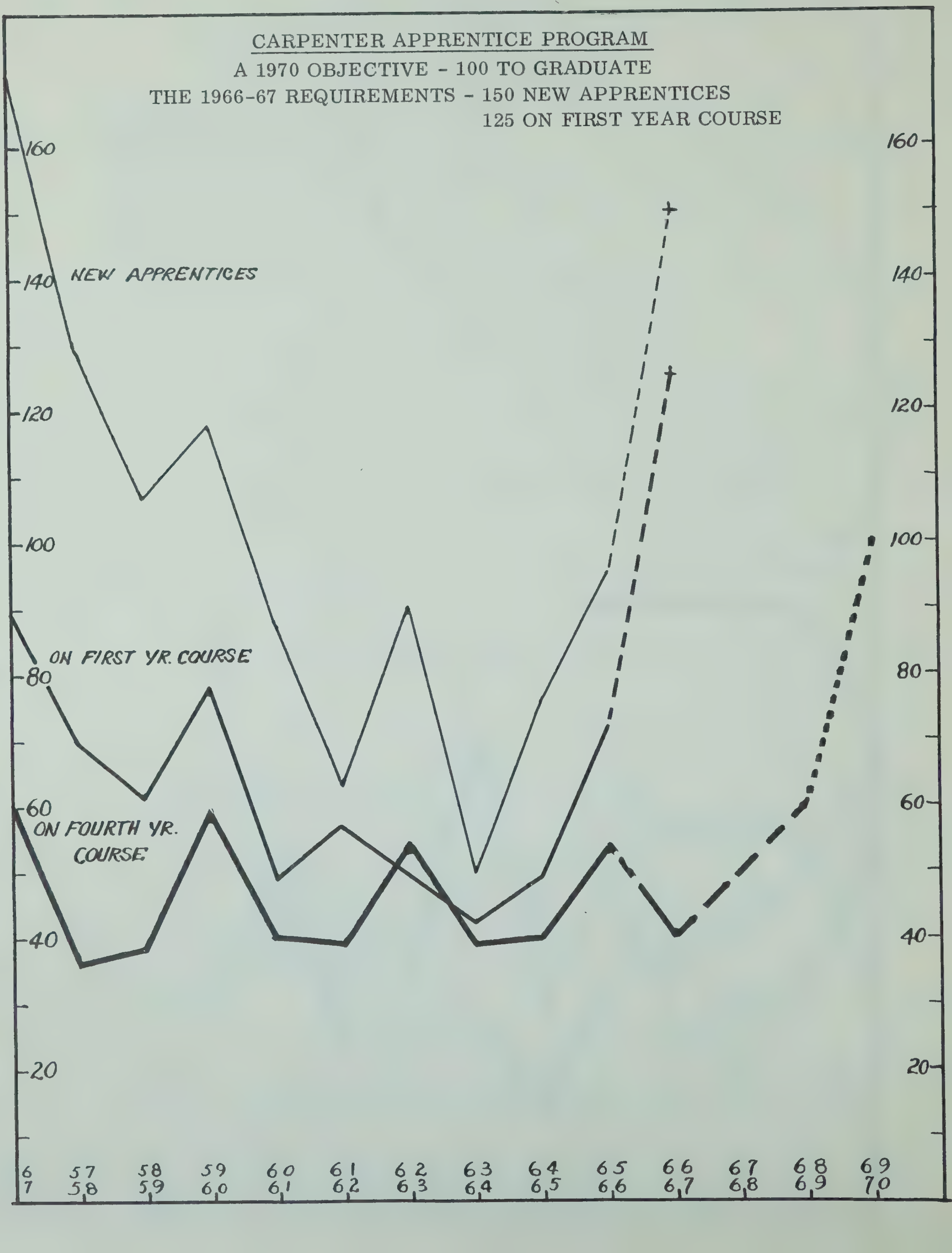
In presenting this record there is no thought of criticism. It is clearly a challenge to Alberta Industry to train its tradesmen and to train them from the ranks of Alberta youth--simply--effectively--through--

APPRENTICESHIP.

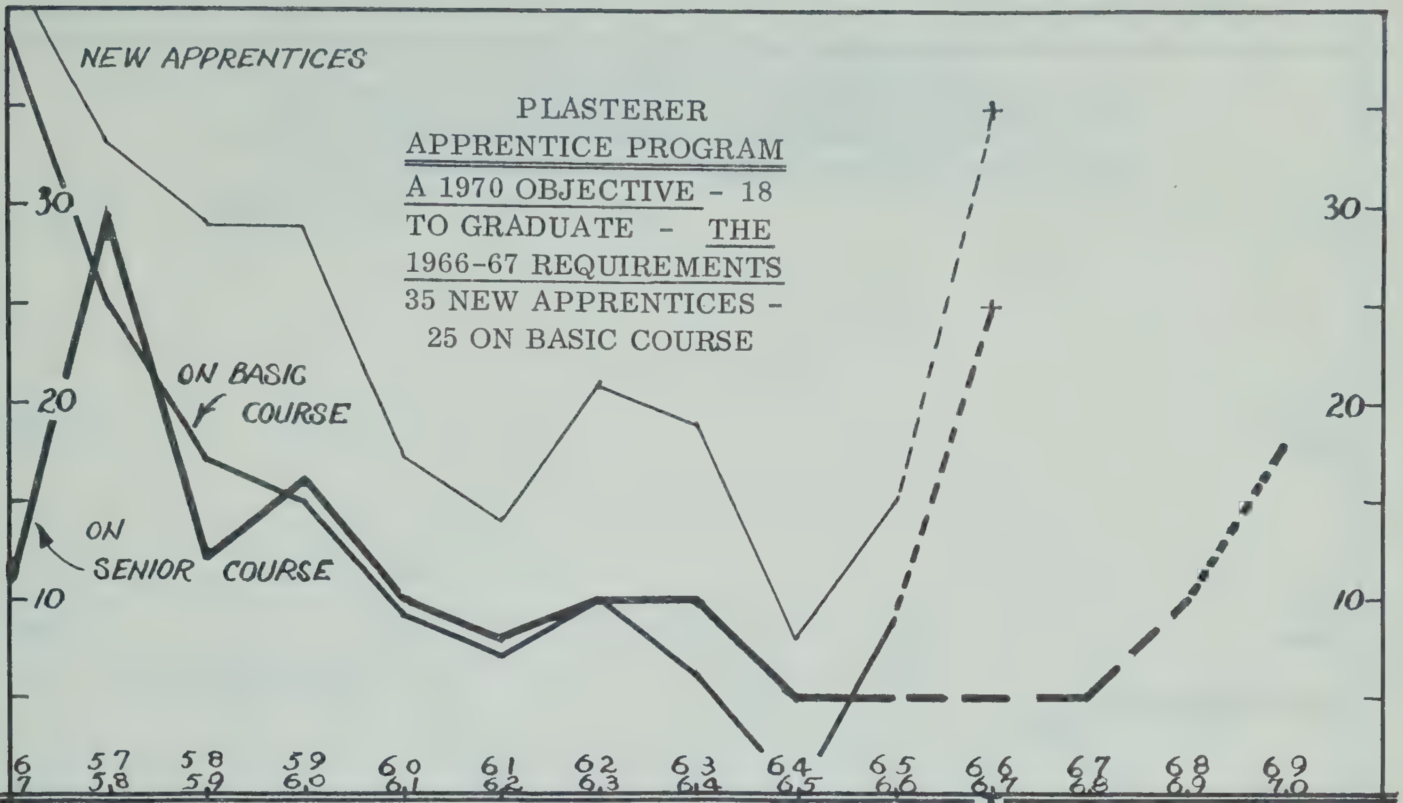
BRICKLAYER APPRENTICE PROGRAM

A 1970 OBJECTIVE - 30 TO GRADUATE
THE 1966-67 REQUIREMENTS - 45 NEW APPRENTICES
37 ON FIRST YEAR COURSE

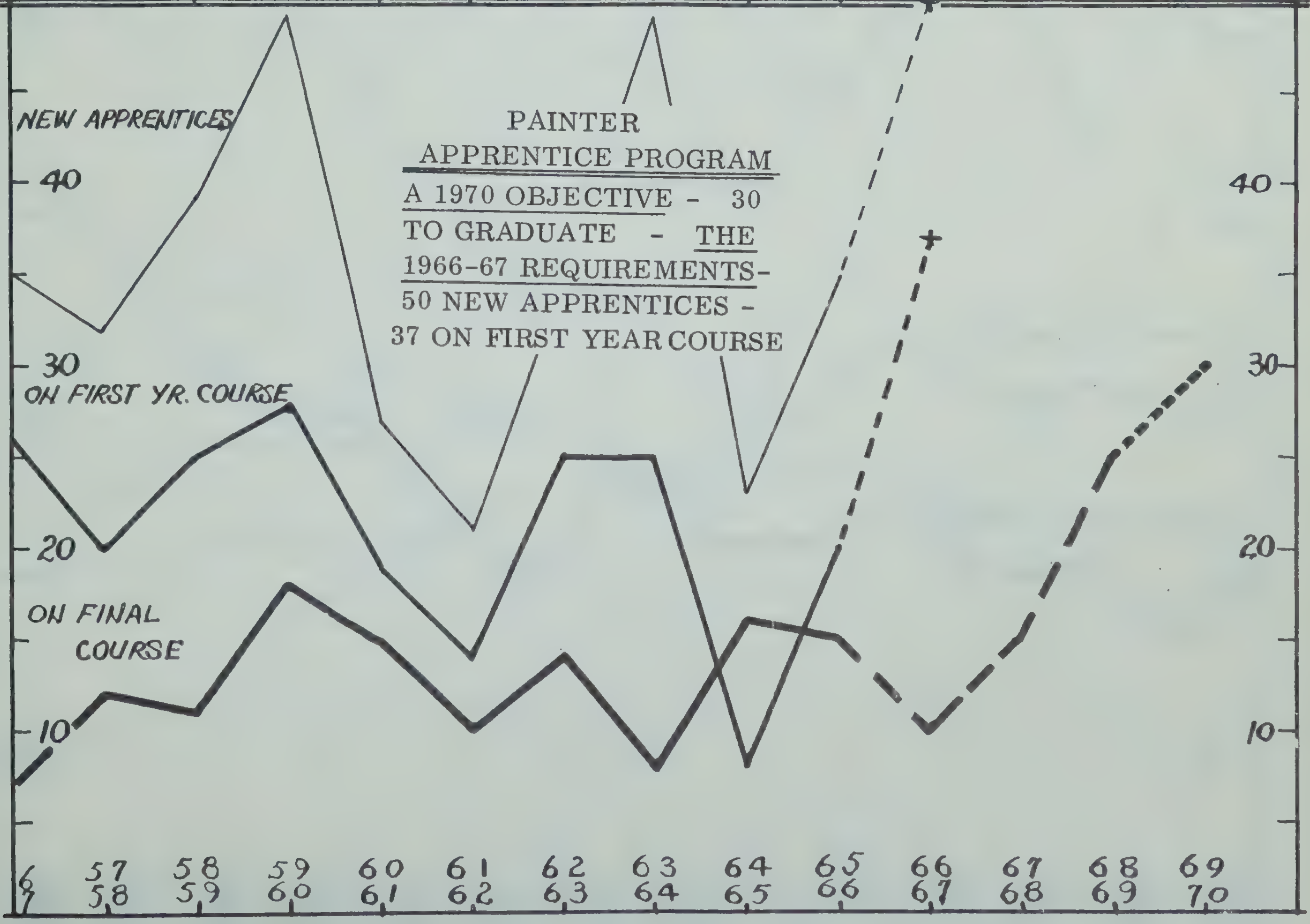




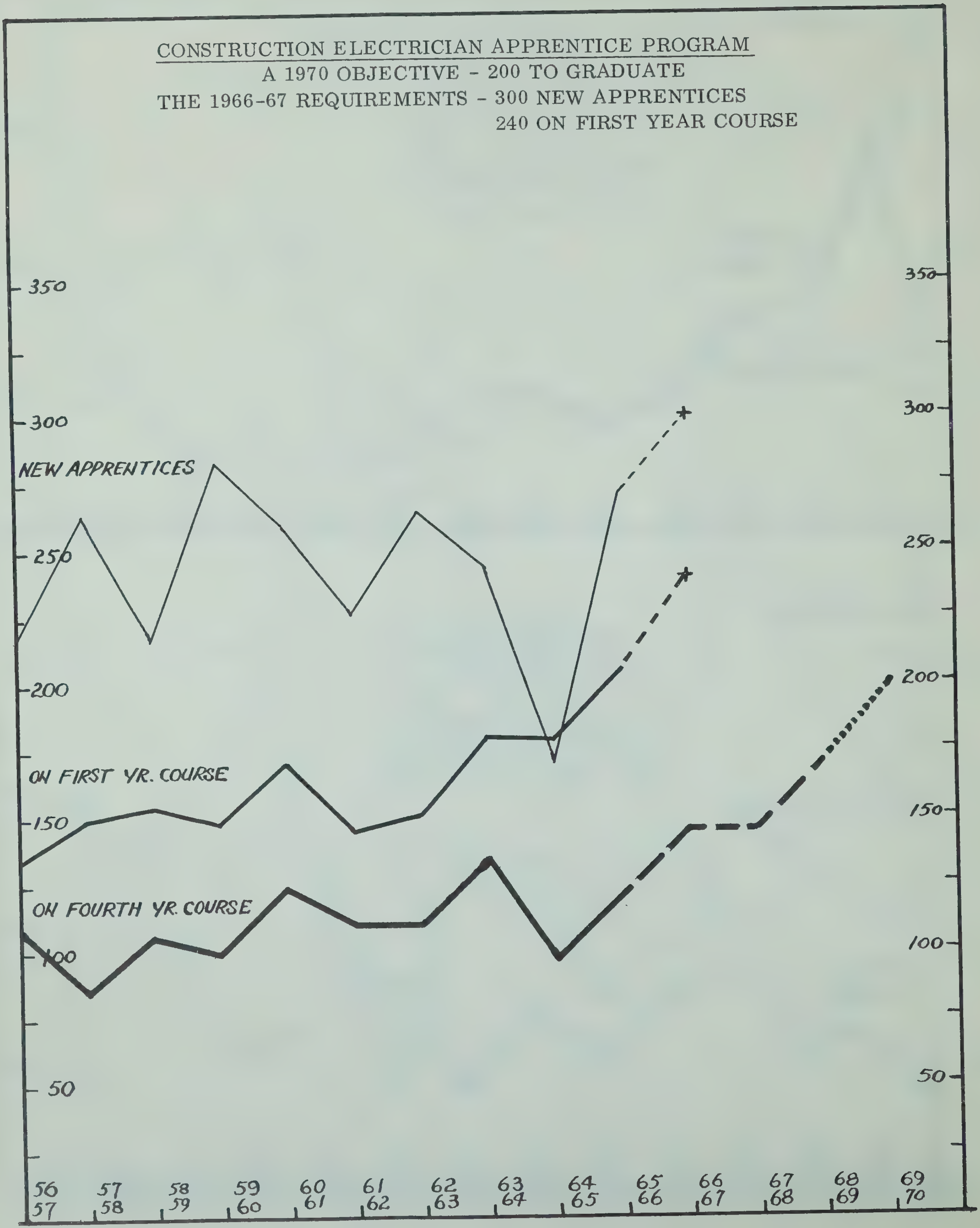
CARPENTER APPRENTICE PROGRAM
A 1970 OBJECTIVE - 100 TO GRADUATE
THE 1966-67 REQUIREMENTS - 150 NEW APPRENTICES
125 ON FIRST YEAR COURSE



PLASTERER
APPRENTICE PROGRAM
A 1970 OBJECTIVE - 18
TO GRADUATE - THE
1966-67 REQUIREMENTS
35 NEW APPRENTICES -
25 ON BASIC COURSE



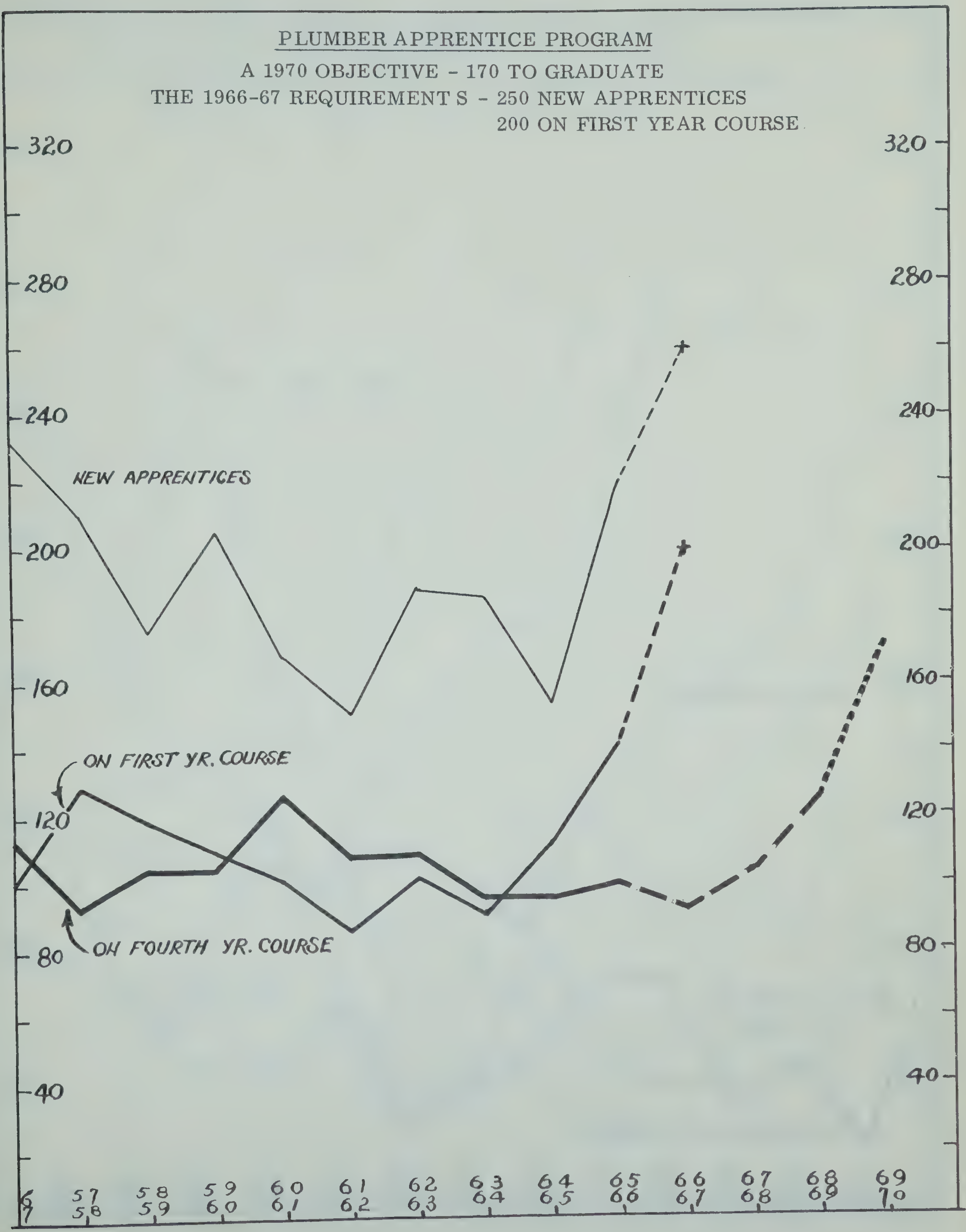
PAINTER
APPRENTICE PROGRAM
A 1970 OBJECTIVE - 30
TO GRADUATE - THE
1966-67 REQUIREMENTS-
50 NEW APPRENTICES -
37 ON FIRST YEAR COURSE



CONSTRUCTION ELECTRICIAN APPRENTICE PROGRAM

A 1970 OBJECTIVE - 200 TO GRADUATE

THE 1966-67 REQUIREMENTS - 300 NEW APPRENTICES
240 ON FIRST YEAR COURSE



PLUMBER APPRENTICE PROGRAM

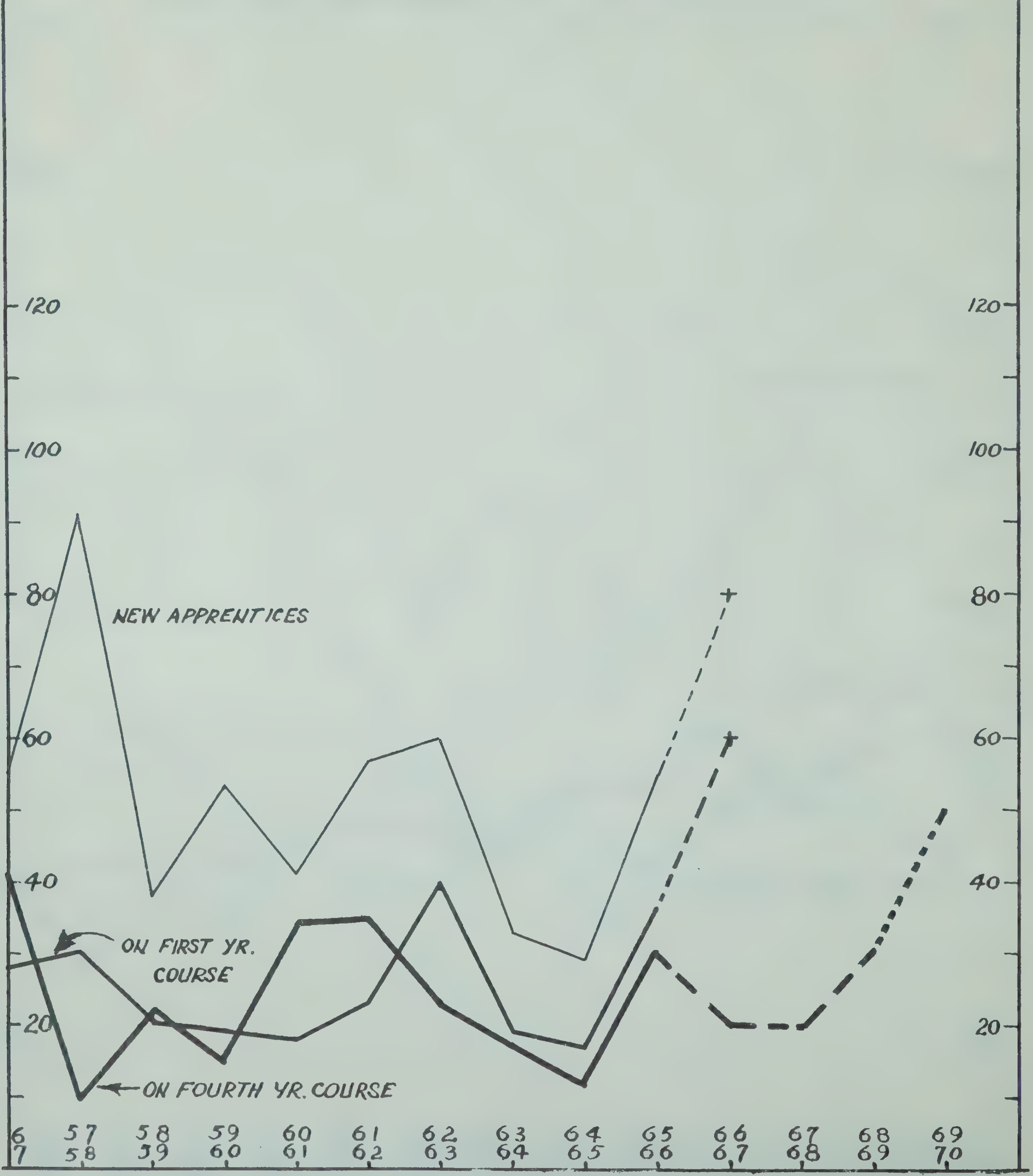
A 1970 OBJECTIVE - 170 TO GRADUATE

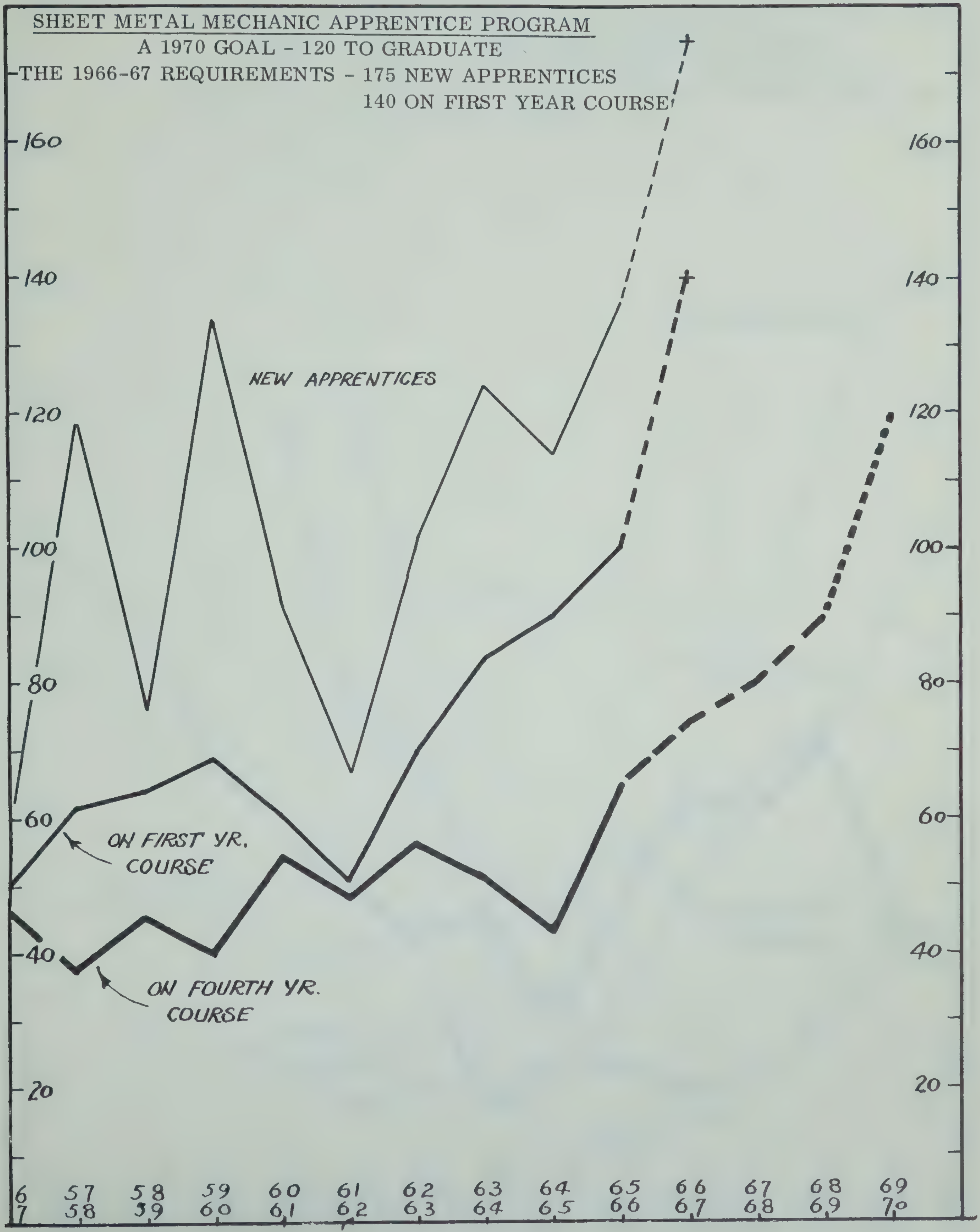
THE 1966-67 REQUIREMENT S - 250 NEW APPRENTICES

200 ON FIRST YEAR COURSE

STEAMFITTER APPRENTICE PROGRAM

A 1970 OBJECTIVE - 50 TO GRADUATE
THE 1966-67 REQUIREMENTS - 80 NEW APPRENTICES
60 ON FIRST YEAR COURSE



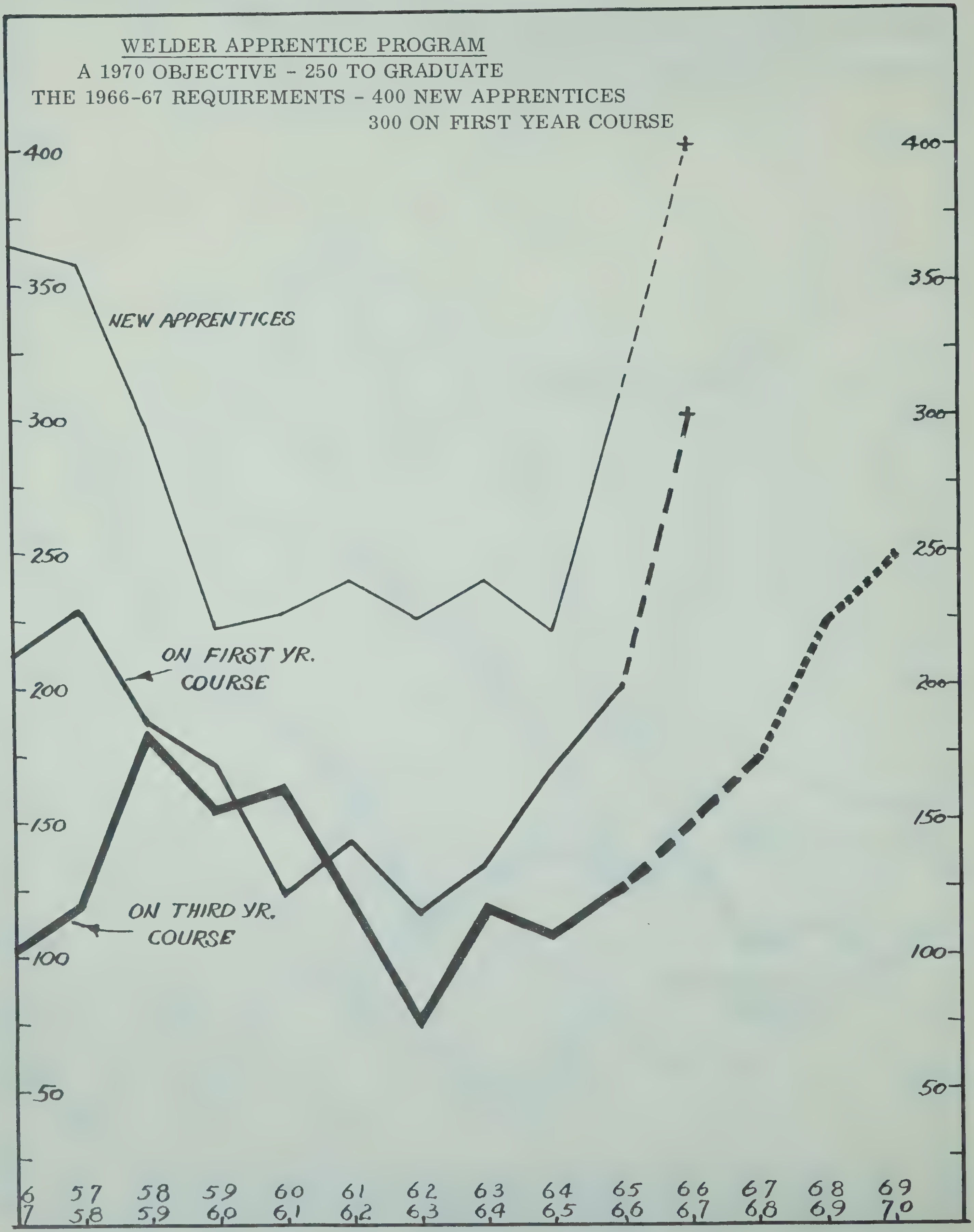


SHEET METAL MECHANIC APPRENTICE PROGRAM

A 1970 GOAL - 120 TO GRADUATE

THE 1966-67 REQUIREMENTS - 175 NEW APPRENTICES

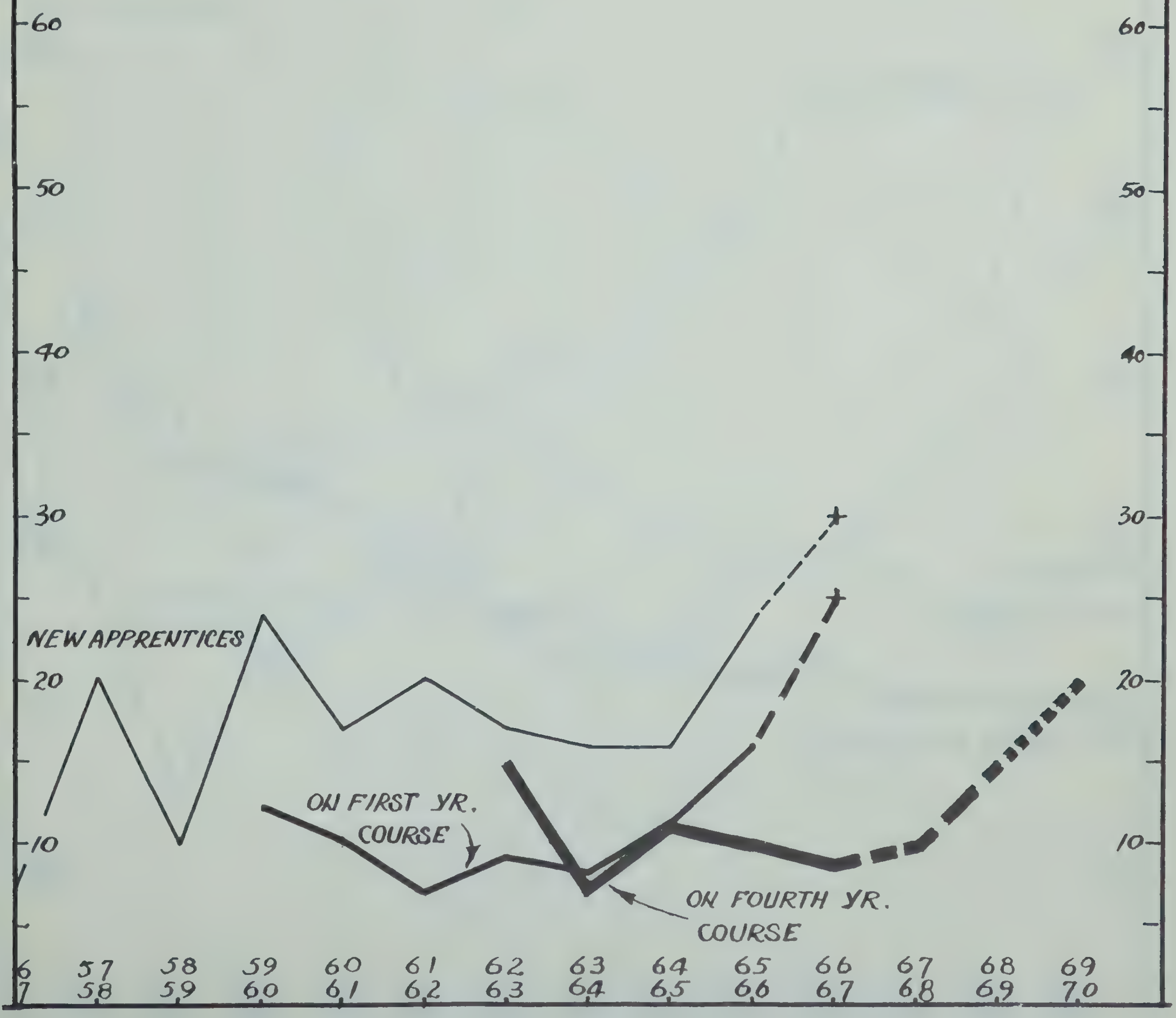
140 ON FIRST YEAR COURSE

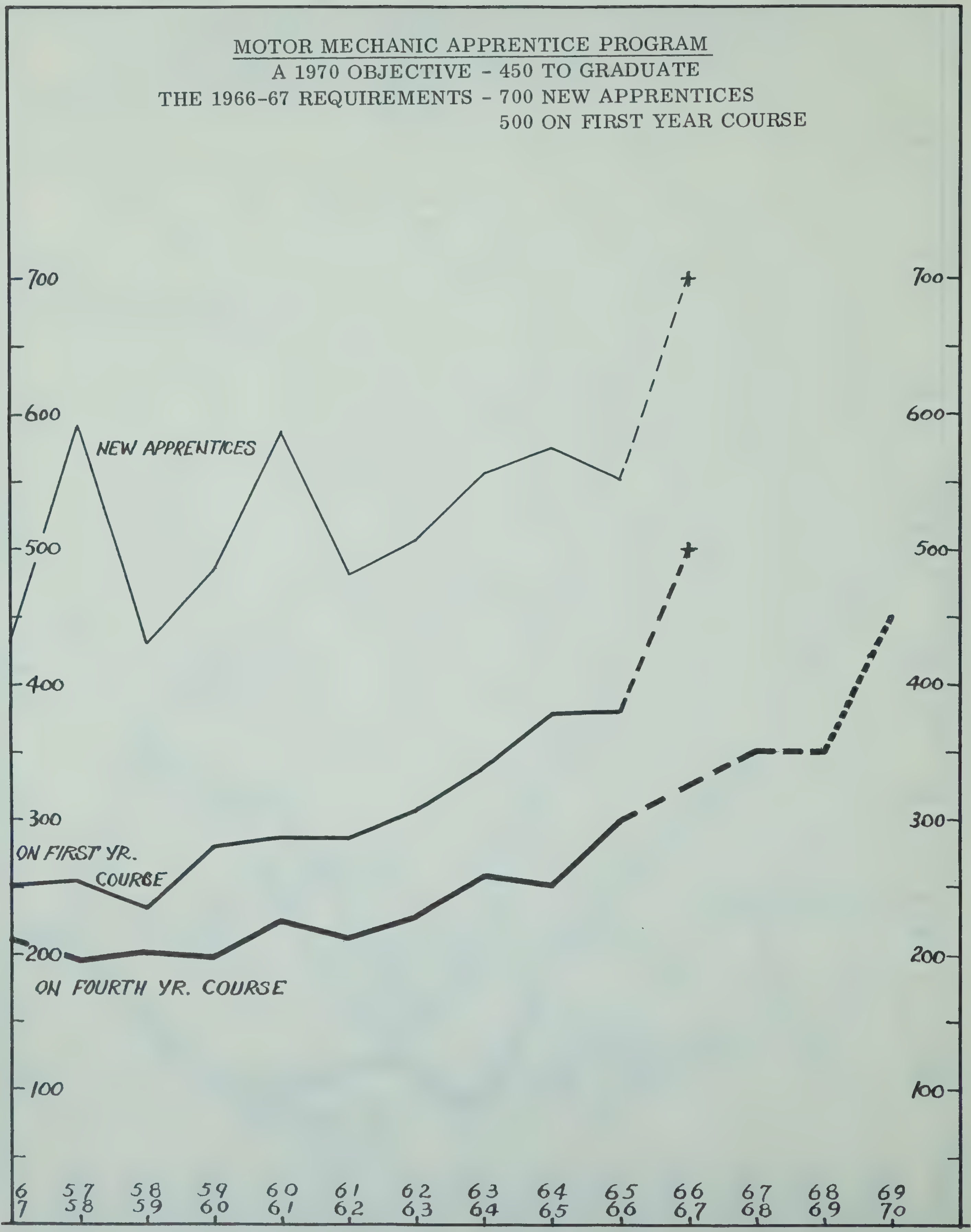


WELDER APPRENTICE PROGRAM
A 1970 OBJECTIVE - 250 TO GRADUATE
THE 1966-67 REQUIREMENTS - 400 NEW APPRENTICES
300 ON FIRST YEAR COURSE

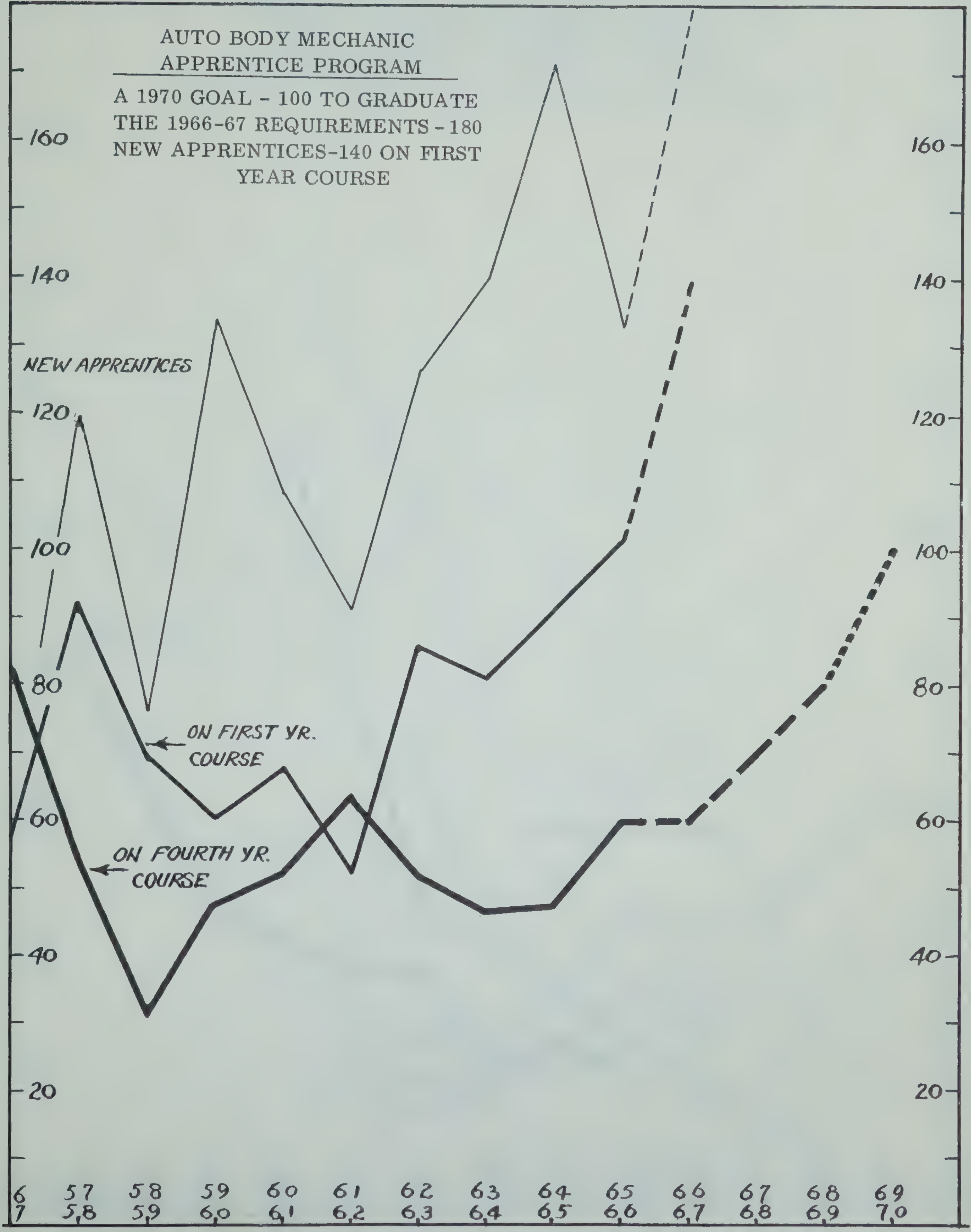
REFRIGERATION MECHANIC APPRENTICE PROGRAM

A 1970 OBJECTIVE - 20 TO GRADUATE
THE 1966-67 REQUIREMENTS - 30 NEW APPRENTICES
25 ON FIRST YEAR COURSE





MOTOR MECHANIC APPRENTICE PROGRAM
A 1970 OBJECTIVE - 450 TO GRADUATE
THE 1966-67 REQUIREMENTS - 700 NEW APPRENTICES
500 ON FIRST YEAR COURSE


AUTO BODY MECHANIC
APPRENTICE PROGRAM
A 1970 GOAL - 100 TO GRADUATE
THE 1966-67 REQUIREMENTS - 180
NEW APPRENTICES-140 ON FIRST
YEAR COURSE
NEW APPRENTICES
ON FIRST YR. COURSE
ON FOURTH YR. COURSE
160
140
120
100
80
60
40
20
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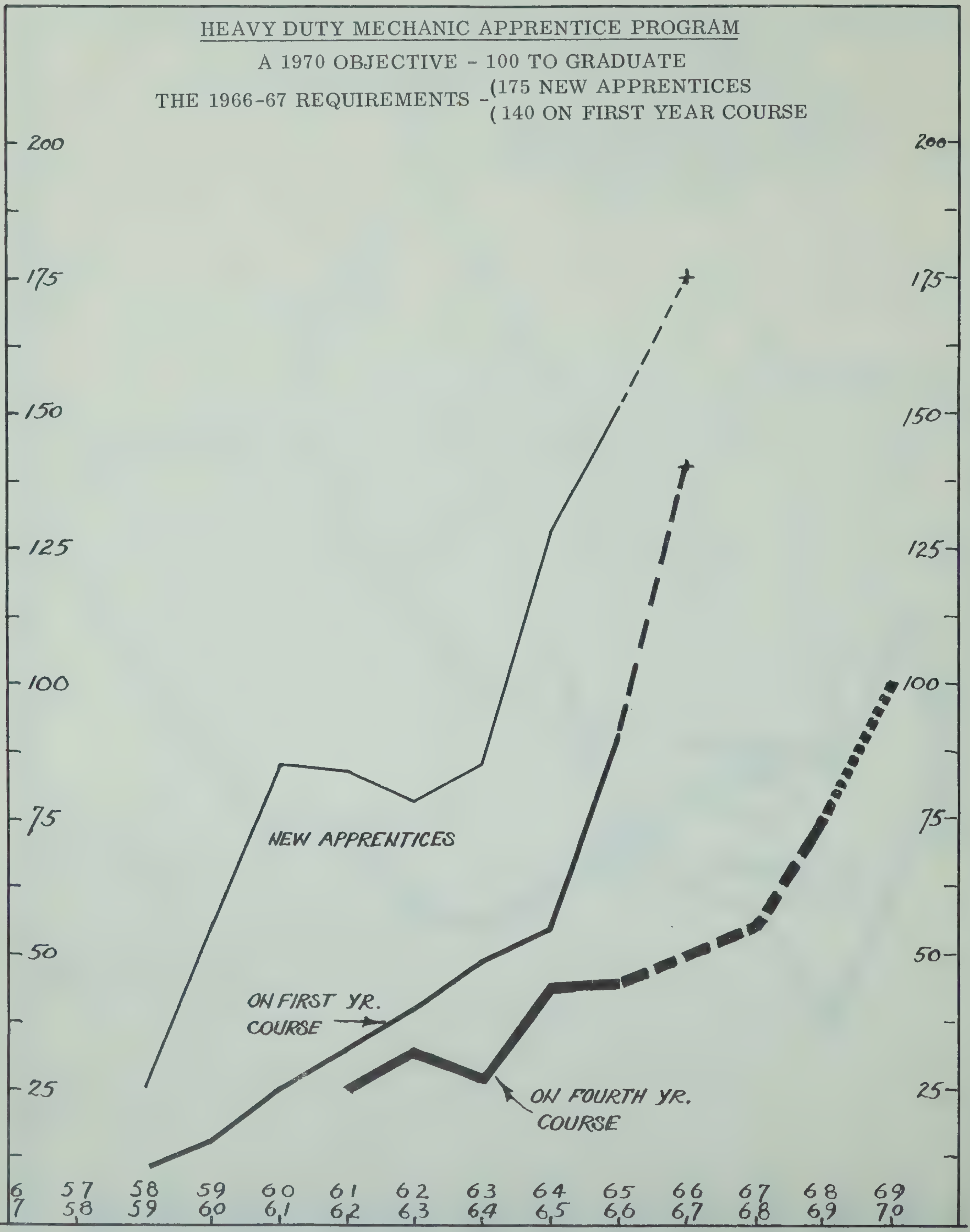


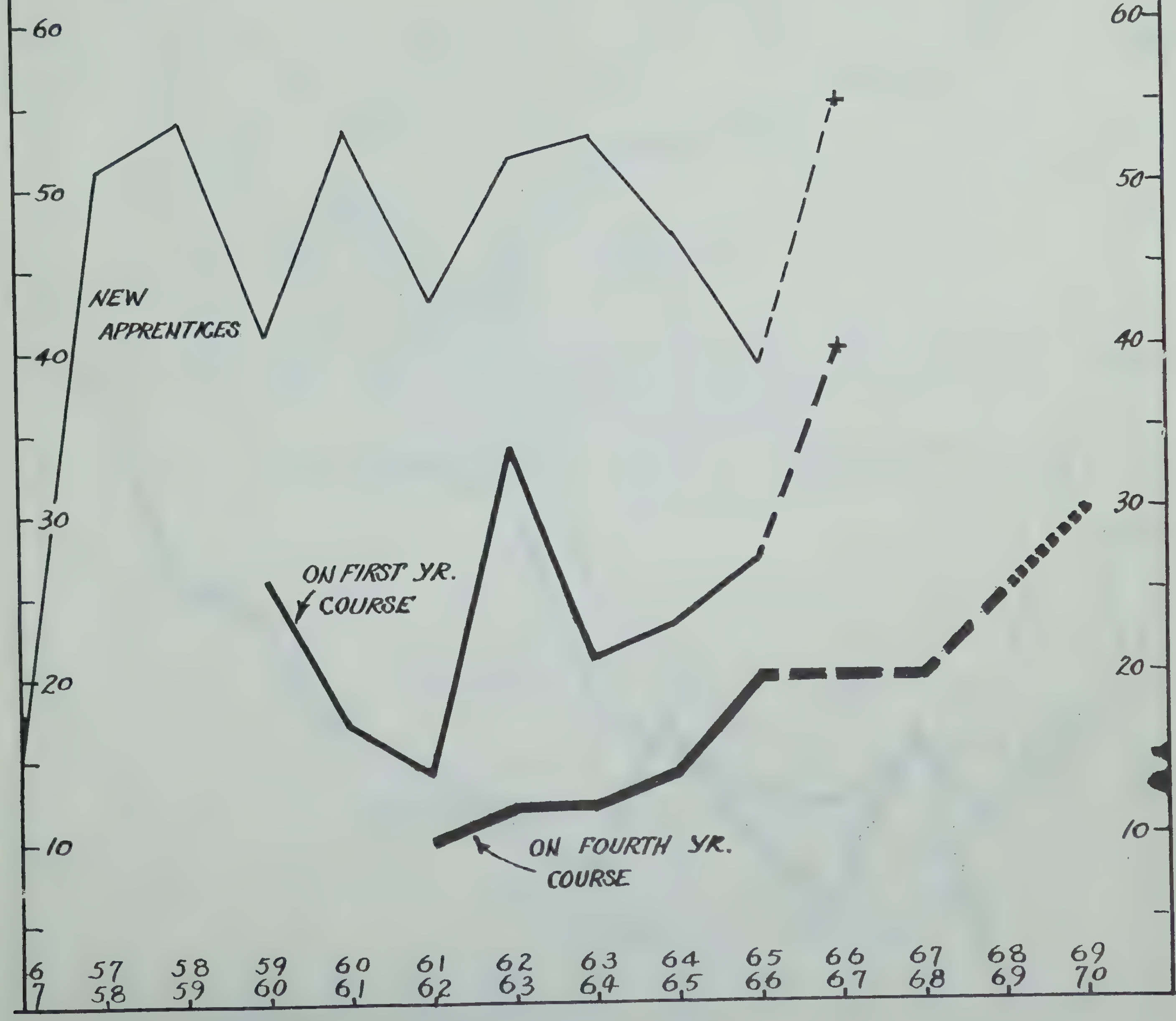
HEAVY DUTY MECHANIC APPRENTICE PROGRAM

A 1970 OBJECTIVE - 100 TO GRADUATE

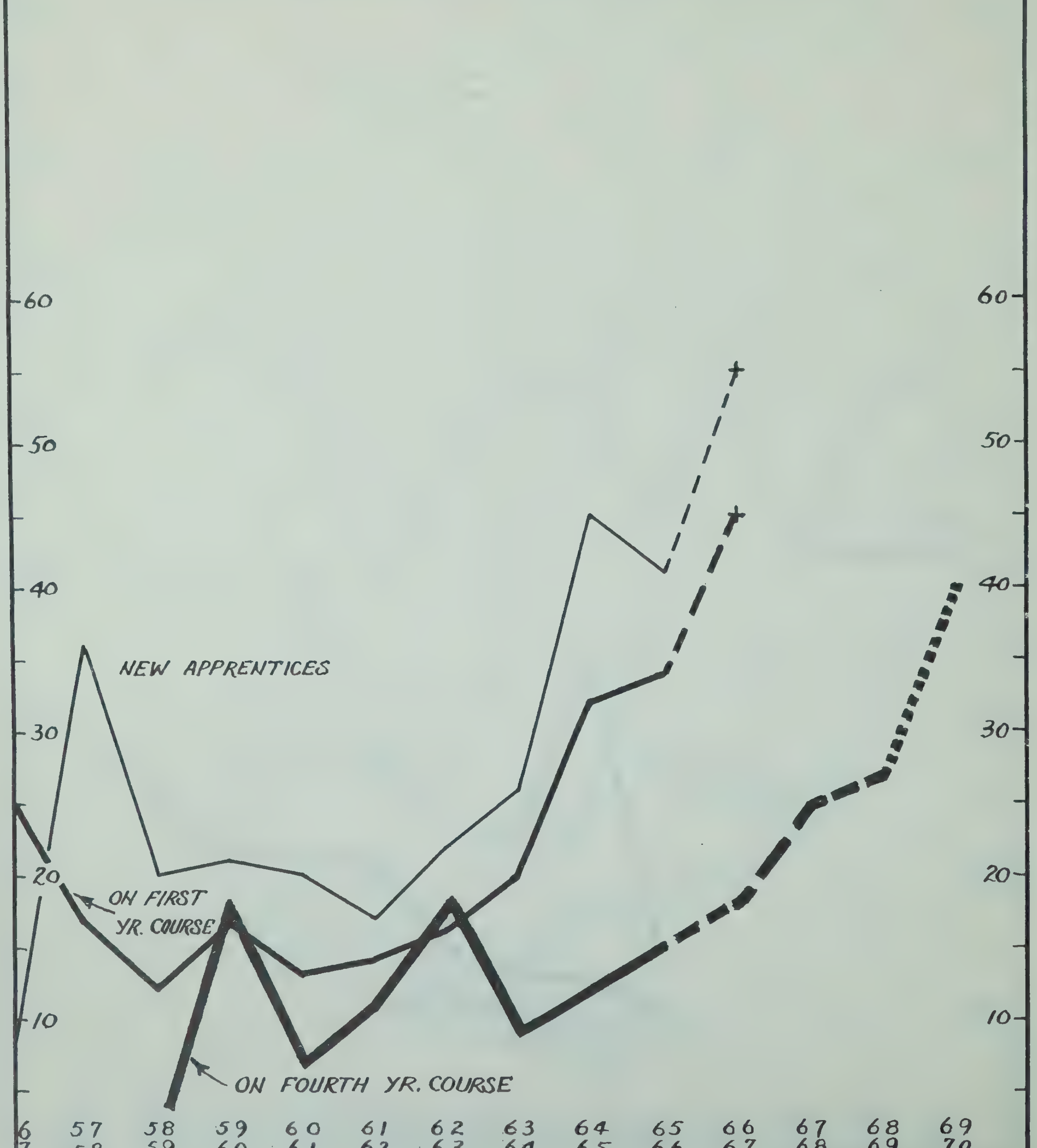
THE 1966-67 REQUIREMENTS - (175 NEW APPRENTICES
(140 ON FIRST YEAR COURSE

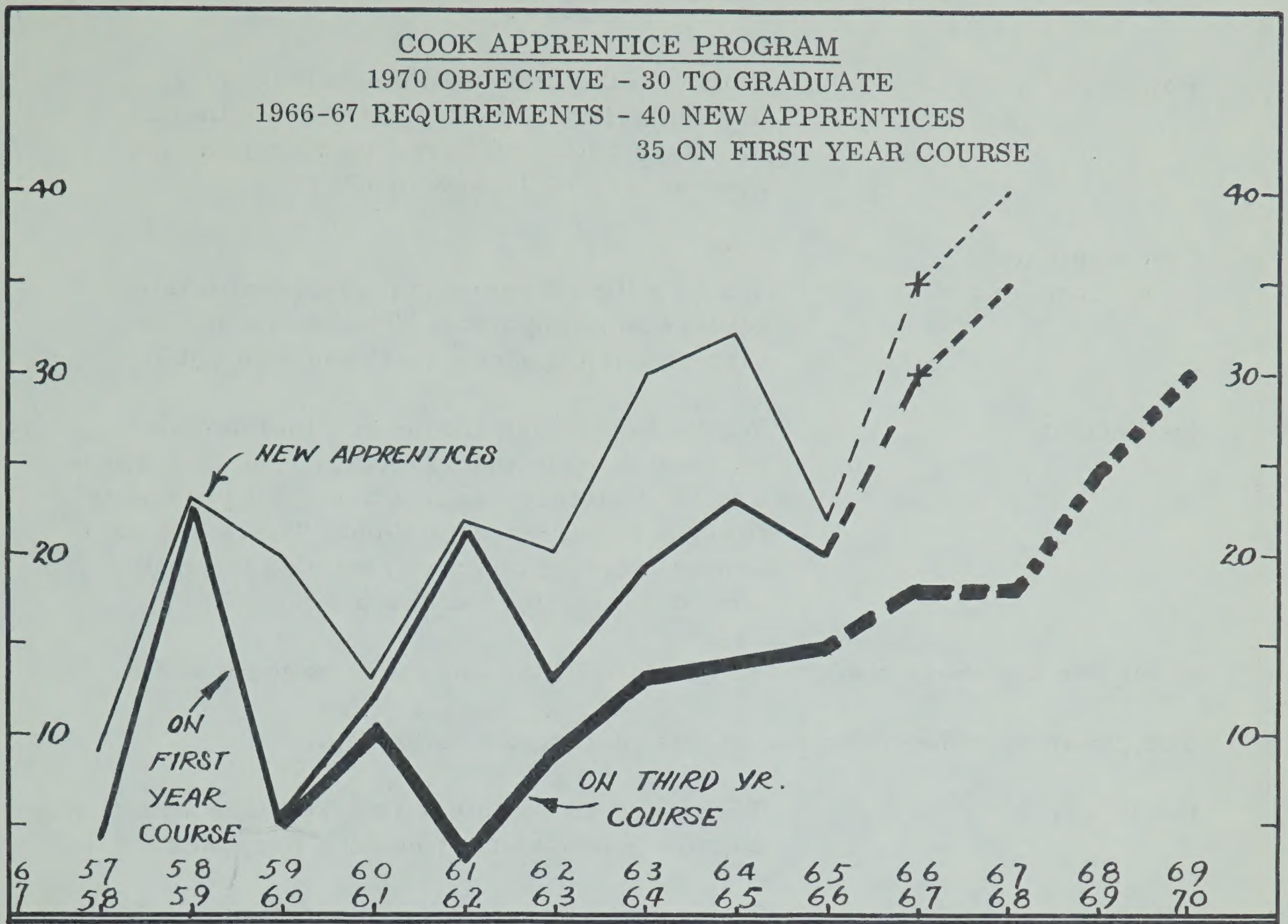
RADIO TECHNICIAN APPRENTICE PROGRAM
A 1970 OBJECTIVE - 30 TO GRADUATE

THE 1966-67 REQUIREMENTS - 55 NEW APPRENTICES
90 ON FIRST YEAR COURSE



MACHINIST APPRENTICE PROGRAM
A 1970 OBJECTIVE - 40 TO GRADUATE
THE 1966-67 REQUIREMENTS - 55 NEW APPRENTICES
45 ON FIRST YEAR COURSE



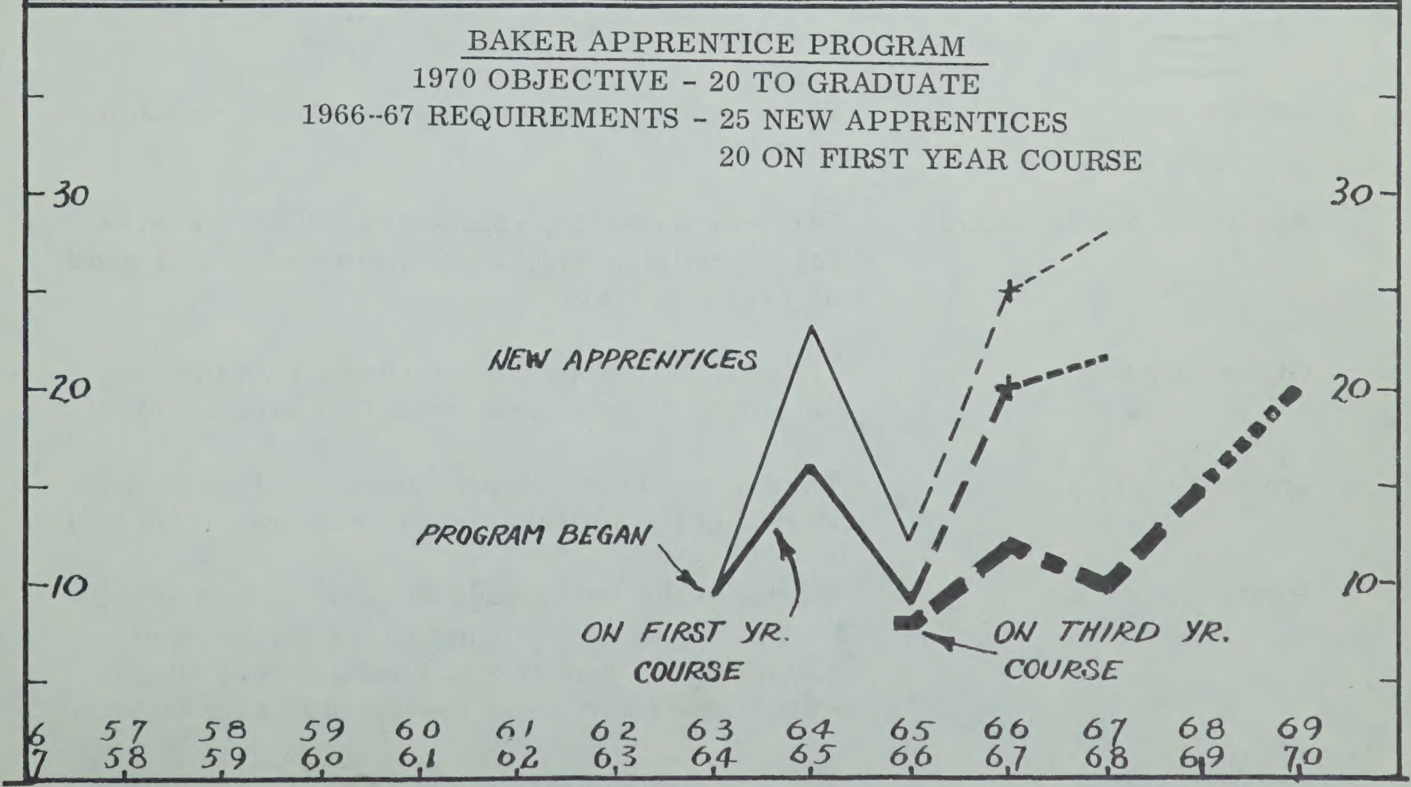


COOK APPRENTICE PROGRAM

1970 OBJECTIVE - 30 TO GRADUATE

1966-67 REQUIREMENTS - 40 NEW APPRENTICES

35 ON FIRST YEAR COURSE



BAKER APPRENTICE PROGRAM

1970 OBJECTIVE - 20 TO GRADUATE

1966--67 REQUIREMENTS - 25 NEW APPRENTICES

20 ON FIRST YEAR COURSE

THE TRADES RECENTLY DESIGNATED

Power Electrician:	Works in the distribution of electricity, particularly in the electrical departments of major cities. There are 50 registered apprentices -- 15 new in 1965.
Communication Electrician:	Works with all equipment involved in telephone communication. There are 555 registered apprentices -- 179 new in 1965.
Millwright:	Works in the installation and maintenance of machinery in manufacturing plants. There are 18 registered apprentices and prospects for a good increase in 1966. There are no school training courses provided for millwright apprentices at the present time.

Goals for the above trades are included in the charts on pages 6 and 8.

The group of "others" on the charts include the following:

Gasfitter:	There are 48 registered apprentices with firms supplying propane for heating purposes.
Tilesetter:	There are 33 registered apprentices -- 14 new ones in 1965.
Lather:	There are 23 registered apprentices -- 13 new ones in 1965.
Appliance Serviceman:	Services domestic appliances. There are 14 registered apprentices and prospects of a good increase in 1966.
Glassworker:	There are 12 apprentices currently attending the initial first year course (January 1966)
Ironworker:	There are about 30 apprentices -- half of them attending the initial first year course (Jan.'66)
Partsman:	Works in the receiving, dispensing and record keeping of parts used in the maintenance of automobiles, trucks and similar equipment. Apprentices are to be registered early in 1966.
Roofer:	The program in this trade is currently being developed.